DOCUMENT RESUME

ED 459 707 IR 058 201

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TITLE	Skills and Competencies for Digital Information Management in Africa.
PUB DATE	2001-08-00
NOTE	10p.; In: Libraries and Librarians: Making a Difference in the Knowledge Age. Council and General Conference: Conference Programme and Proceedings (67th, Boston, MA, August 16-25, 2001); see IR 058 199.
AVAILABLE FROM	For full text: http://www.ifla.org.
PUB TYPE	Reports - Descriptive (141) -- Speeches/Meeting Papers (150)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*Competence; Developing Nations; Foreign Countries; Global Approach; *Information Management; *Information Scientists; *Information Technology; *Job Skills; Problems
IDENTIFIERS	Africa; Digital Information Services

ABSTRACT

Given the global computerization environment, this paper aspires for the kind of information manager in Africa that is versatile globally, deals with all sorts of technical and resource management issues, and relates at all levels of interaction. The emphasis is on the information professional and manager with a vision of good leadership and excellent communication, presentation, and interpersonal skills to steer Africa into the present and future era of computerization through guidance, advice, and mentoring. The paper advocates for information managers that are champions of change in their respective organizations, leaving them self-perpetuating into the future of digital information. These are professionals that have the visual knowledge and understanding of the challenges Africa is faced with in striving to embrace the concept of digital information. It is noted that the magnitude of the present African economic, social, and political crises leaves it lagging behind in the information and communication age. Described in the same light is the fact that Africa is content with lack of basic skills, as well as supervisory and management capabilities with training seen as wanting, irrelevant, and obsolete. Attention is paid to upgrading skills in the labor force in both technical and behavioral skills, thus calling for human resource development to meet the challenges of digital information. (MES)

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ED 459 707

67th IFLA Council and General Conference
August 16-25. 2001

Code Number: 009-143-E
Division Number: VIII
Professional Group: Regional Activities: Africa
Joint Meeting with: -
Meeting Number: 143
Simultaneous Interpretation: Yes

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Skills and competencies for digital information management in Africa

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Abstract:

Every service oriented in the world today sees the need for survival and success pegged on the importance of identifying, developing and retaining managerial / leadership talent from amongst professional and individuals who demonstrate the ability to marshal global digital information for comparative advantage. Faced with global computerization and fast changing information technologies, Africa is at crossroads of information management and its provision. The information managers constitute the generation of senior executives who require skills and knowledge that will enable them cope with changes in the information service industry today. This requirement point to the kind of information managers that will break the barriers of information management, access and ownership just to ensure at least Africa and her citizenry have a share of the world information commodity at their disposal for development. Given the global computerization environment, this paper aspires for the kind of information manager that is versatile globally, deal with all sorts of technical and resource management issues and relate at all levels of interactions. The emphasis is on the information professional and manager with a vision of good leadership and excellent communication, presentation, interpersonal skills to steer Africa into the present and future era of computerization through guidance, advice and mentoring. The article advocates for information managers that are the champion of change in their respective organizations and leave them self- perpetuating into the future of digital information. These are professionals that have the visual knowledge and understanding of the challenges Africa is faced with in striving to embrace the concept of digital information. Noted is the fact that the present African magnitude of the economic social and political crises leaves it lagging behind in the information and communication age. Thus creating the elusion that the concept of the global information village is a hoax given that communication within villages is unattainable whether by road or telecommunication. Described in the same light is the fact that Africa contents with lack of basic skills, supervisory and management capabilities whose training is seen as wanting, irrelevant and obsolete. Attention is being paid to up grading skill in the organizations' labor force in both technical and behavioral skills thus calling for human resource development to meet the challenges of digital information reducing the complexities of training to performance improvement.

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INTRODUCTION

Every service oriented industry in the world today sees the need for survival and success pegged on the importance of identifying, developing and retaining managerial/leadership talent from amongst professional individuals who demonstrate the ability to marshal digital information for its comparative advantage. Faced with global computerization and emerging fast changing information technologies, Africa is at the crossroads of information management and provision. Such information managers including librarians, should constitute the generation of senior executives requiring skills and knowledge that will enable them cope with changes in the information industry today. The kind of information manager that will break the barriers of information access and ownership and ensure at least Africa and its citizenry has share of the world digital information commodity at their disposal for development. Given the global computerization, this article aspires for the kind of information manager that is globally versatile, able to deal with all sorts issues in information world and relate at all levels of interaction. The emphasis is placed on a good manager with a viable vision of good leadership to develops excellent communication, presentation and interpersonal skills to steer Africa into the present and future era of computerization by being able to guide and advise governments, institutions and individuals on the way forward and indeed serve as mentors. The new paradigm for the African information manager is that of becoming a champion of change in their organizations today and leave self-perpetuating institutions for tomorrow's digital information.

CRITICAL POLICY ISSUES.

It is important to isolate the African critical policy issues which proper management skills and competencies have to address. Africa is at crossroad with recessions, organizational reconstruction and the problem of applying modern technologies to traditional organizational structures and vice verse. Africa is also to content with high unemployment, illiteracy and the ardent need for basic skills, lack of supervisory and management capabilities, and training being described as wanting, irrelevant and obsolete. A mismatch between the labor market needs and what knowledge and skills people have is evident. Thus exposing the majority of people without soft competencies in communications and basic computer literacy. What is being pronounced is the challenges of a continent and nations in transition and exposing an underdevelopment world without funds for training and improvement and no capacity to maintain new technologies crucial for global competitiveness. Today, Africa is concerned with handling rapid globalization against the background of poverty, illiteracy and diseases. The technology explosion is seen to promote the required changes and is well seen to make it really difficulty as it changes very fast indeed. However, it is admissible that the whole world is experiencing technological explosion thus making the transition from training to performance improvement really complex globally. But the catch is for everyone to pay closer attention to modernizing organizations' labor force in both technical and behavioral skills. This simply calls for African human resource development to meet global digital information and for the training institutions to develop a relevant program that targets the challenges of digital information.

Shibanda (2000) observes that Africa is economically stagnant and technologically marginalised. The obvious choice for people is to strive to meet their basic needs of life. This situation leaves Africa without investment alternatives to promote political and social economic growth. Thus sees information and telecommunication technology as an impetus for growth at all levels of development. If Africa fails to embrace this wave of worldwide digital information technology, then, they may as well sink by it. He therefore cautions that the existing fear and resistance on the right to communicate, access to information and exchange of experiences and ideas via internet connectivity need not be tolerated.

CRITICAL PATH.

While conceptualizing global information technologies, Shibanda (2000) described digital information in the same light with information society - information super highway - cyberspace - information age - virtual world - computer age - network computer systems - information revolution - internet age - global information village. He explains that the common understanding of all this is what the world witnesses currently as the era of worldwide telecommunication characterized by the global data highways harnessed vide use of appropriate information and communication technologies (ICT). He sees it as an euphoria of faster information communication and transfer through a menu of internet and e-mail facilitated communication What is brought in the fold is the present African magnitude of the economic social and political crises which leaves the continent at crossroads and lagging far behind in the information and communication age as shibanda points out that for many Africans, the concept of the global information village can be seen as a hoax given that communication within and across villages is unattainable whether by roads or telecommunication. It may therefore take as much as to eradicate poverty and ignorance as to telenetwork the villages and urban centers. This is tall order for steering ICT in Africa. Yet Africa must still embrace the concept of digital information whose task and token the information managers within the continent have to direction through a platform of action that empowers the African information manager to have a visual knowledge and understanding of the African problem as seen through:

- Reduced access to knowledge and information
- Need for regional-global integration and co-operation
- Need for ICT cultural ethics
- manpower resource requirement
- Education, research and an ICT development structure programs
- Funding for ICT investment
- Poverty and illiteracy in African society.
- Legislation gaps and ICT policy guidelines
- Insecurity and bureaucracy against ICT

These are the issues the information professionals have to content with in Africa. Indeed their energies must always be directed on the above problems for attention. The bottom-line is that it will require their professional skills and competencies to help surmount these problems. They will have to marshal special approach and tactic to overcome these issues.

SKILLS.

The real challenge for African digital information is to put in place an information management or professionalism that possesses the skill and competencies that can develop meaningful programs that supports and activate that use of information and communication technology Willet (1988). Such programs should have global blending to land credentials to international information programs just to guarantee a partnership role for Africa in the information age. Such skills and competencies should evolve around providing which direction Africa takes to be part and parcel of digital information based on Shibanda and Musisi-Edebe (2000) description in the light of:

- Information society initiative
- Sectoral national-regional information infrastructure that will facilitate the development of an information and communication system targeting the connection of libraries, information centers and institutions through internet connectivity.
- Promote the use of on-line communication by putting in place a functional system as above.
- Development of national information strategy with backup decisions for participation as partners in the global information superhighways.

- Establish research, training and development programs for assessment of feasible ICT trends and course of action to enable the continent exploits cyberspace technology opportunities.
- Formulate possible programs of action through a national and regional ICT funding, policy and resource committees, information task forces, network program, ICT promotion groups and government ICT committees.

Embracing digital information wholesomely means adapting global information and therefore participating in worldwide information business. This ushers in a global culture that is equally important to all nations in the world - that of doing and handling things in respect to information with new approach virtually brought about by ICT. For the information professionals, there is need to reexamine skill application to suit both positive and negative aspects. These are:

(i) Positive Aspects
- Decentralization of leadership and decision making
- Transparency and openness in organization development
- Willing to change based on how it is elsewhere
- A more participative style and new vision in management of organizations with corporate value for corporative advantage brought about by digital information approaches.

(ii) Negative Aspects
- Digital information is forcing in centralized control of knowledge, strategies and values.
- Digital information vide globalization is ushering in new culture of doing business or undertaking tasks
- Digital information is causing misunderstandings and miscommunications in certain aspects.

The information professional should have the ability to build on the positive aspects of the information era while making good of the negative aspects of globalization to ensure the benefits accrued from digital information outweighs everything else. In other words, management skills should constitute a kind of response that is appropriate to meet the challenges of change as presented by information revolution globally. Appropriate training program need be put in place to provide the required skills to information managers in African organizations. This will ensure ICT takes root and little shocks are experienced while brokering and embracing digital information. This will also ensure information managers do understand the global nature and dynamics of digital information for the African advantage. Their activities would also include a more cultural digital information assessment, integration of global partners in digitized information, global decision making with pertinent leadership structures conducive in ICT environment for knowledge management and access.

Given digital information predicament world wide, management skills among information professionals will entail:
- Knowledge management, promotion and performance enhancement
- Fund raising and strategic organizational planner
- System designer/not necessarily system analysis
- Program development and policy and formulation
- Professional emphatic to research training and program development.
- Building of professional competencies, cultural sensitivity, courage to challenge
- Transparent, willingness and open to learning
- Possess dynamics of service / business with global nature
- Encourage global oriented structures and integration of global partners
- Promoter of human capital across cultures, be open minded, appreciate cultural diversity
- Persuasive in promoting change
- Create opportunities to educate management and clients in the new global digital information skills
- Cooperative and assist others to appreciate values such as respect, openness, trust, diversity, flexibility, teamwork, participative management style and possess holistic vision for digital information tasks.

Indeed one of the key issues in digital information management in Africa is to have organizations and people gain more confidence, competency and control in a world of versatility and fast changing ICT as a means to managing and accessing knowledge. It is common knowledge that digital information is a global phenomenon which presents a few challenges to African organizations. The African information managers need therefore to strive to fulfill new knowledge needs described by Hartenstein (1999) among others as:

- Theory and practice of globalization
- Cross cultural human communication
- Value awareness
- History and culture of each country in partnership
- Ways of handling change
- Communication skills

Much should be viewed from Hartenstein (1999) observation that digital information relative to globalization is the major drive for rapid change ... people management and development is the only source of a renewable competitive edge and possess a question on how can people management and development respond for globalization pressure ... in whose answer human management skill and competencies needs is built up in the:

- Use of computer technology training
- Knowledge management capability and learning culture
- Organization development skills

This particular package would help to actualize management endowed with organizational focus from process to outcomes, from control to capabilities and from management to enablement.

COMPETENCIES.

Twinning management skills and competencies should underlie sound base for sustaining Africa in digital information era. Competencies, in this context, places emphasis on bridging gaps in the technical structures and mapping of digital information. More so, in the technology know-how and its application for maximizing digital information globally. This article argues therefore that technical competencies particularly based within this understanding, is a must to overshadow the traditional management of knowledge and information in Africa and thus ensure the continent remain overboard globally. This will therefore require a management mind with a conceptual framework for implementing the technology required for transacting in electronic information service. There is therefore need to induct the African information manager in the art of Davenport (1997):

- Management of IT and web-technologies which should constitute management of change, management of quality, management of technology organization and management of investment.
- Knowledge information management with current capabilities option for intelligent information retrieval which constitute varying facilities to manage, store and retrieve documents. This is simply building on the information ecology vide information and knowledge environment.
- Project planning and management of virtual world which builds on the knowledge and understanding of communication mediums that will enhance project planning and scheduling in Africa. The knowledge skill and awareness of good project planning is an impetus for the continent's project management.
- Creation of community-based information networks based on multimedia digital networking information technology which constitute a community of organizations formed through co-operations via ICT networks for sharing resources. Community based competencies would evolve around various resources in the community that make up information, knowledge and expertise and therefore having the ability to think and act strategically within the community crucial competencies of information, knowledge and expertise. In practice this is what Kodama (1998) would call community management, purely seen as strategic community creation.
- Assessing opportunities and risks in ICT for African organizations
- Re-engineering African information management practices inline with global technologies and provide current and future directions of ICT technologies particularly multimedia technology.

MIND-SETTING THE INFORMATION MANAGERS.

A change of mentality or change of heart is currently required among library managers to be able to understand that they are in a kind of partnership in digital information management and provision. That telecommunication has reduced the world to a village and they are therefore part and parcel of the global village. The library manager in Africa has had traditional mind set on books (print word) as the vehicles of knowledge and information. Today, the very library manager is stigmised by the emerging digital information and is bound to compromise the idea of managing both information in print and managing digital information. He/she is now faced with the task of popularizing digital information against the background of illiteracy, lack of electricity, lack of telephone connectivity and poverty-stricken citizen without purchasing power for television and computers besides hostile political environment on freedom of information. Though faced with the dilemma of managing the traditional knowledge and information centers along side digitized resources, the library manager must blend and develop the taste of both. The librarian manager will need to adopt two approaches in order to help bridge the gap caused by digital information as reflected through:

(a) INFORMATION DIGITIZATION

In striving to put Africa at the heart of ICT development merely for harnessing and exploiting it, the library management in African organizations will need to re-engineer libraries as the realm of communication backbone of the information society through the provision of a wide range of products and services. To fulfil this task, the professional librarian should have the understanding and knowledge of:

- Promoting and publicizing ICT utilization by impacting information and computer skills and put In place facilities for information transfer including Internet cafes and e-mail connectivity close to people and through community centers.
- ICT programs that should form part of library and information education for equipping library management trainees with appropriate skills to manage and utilize digital information in African organizations.
- Research and mobilization of ICT working groups to plan and maximize global ICT opportunities.
- Information integration and resource sharing through co-operations by maximizing the ICT global opportunities just to ensure Africa has a share of digital information with appropriate ICT to allow access within and without.
- Re-engineering services tha. are cost-effective to allow exploitation of digital information via net-workings and on-line acces s while laying stress on information content, flow and value.
- Information management 'o help improve international program including Universal Availability of Publications (UAP) for collating African national bibliographies for ease of interlibrary lending activities.
- Legal framework of information to facilitate lobbying within institution, government for enhancing freedom of information by removing barriers on matters pertaining to ICT and putting in place a financial strategy for support and sustainability of ICT in Africa.

(b) PROPAGATION OF DIGITAL INFORMATION ETHICS

What matter is to have a functional ICT infrastructure for Africa to allow wider utilization of digital information. The distribution pattern of ICT facilitation that enables easy access and communication of information is limiting among regions and organizations. In extreme situations what already exists in terms of ICT hardware and software make it impossible for connectivity due to differing standards. This calls for a sound ICT ethics that should make Africa part and parcel of global information. Global ICT ethics should therefore have the understanding of the information professions steering Africa into the knowledge cyberspace. Such understanding and knowledge need include:

- Balanced decision making between the north and south to bear upon the information "have" and "have not" and work towards reducing information gap among people.
- ICT standardization for ease of connectivity.
- Acceptance of differing cultural values across the world and incorporate local knowledge.
- Help to build global networking and strengthen global partnerships via casual friendship and acquaintances.
- A visionary better world built on solidarity, social justice and ecological sustainability.
- Approve freedom of information as underlined through national legislation and international charters and international institutional programs devoid of censorship and propaganda.

(c) BRIDGING INFORMATION AND COMMUNICATION GAP

It is the strongest view of this author that haphazard information centers and systems including libraries are not conducive for adoption and application of information and communication technologies for their maximum exploitation. Information systems in Africa are perfect examples in dire need of reorganization for any meaningful ICT application. Notable examples are inadequate information resources despite high demands for such and costly information accessibility both for local and foreign literature not being readily accessed by the clientele. It is not even easy to communicate across villages given the underlying problems of telecommunication, road network and electricity supply. To think and move global, the information managers have to contemplate solutions to these problems. Yet there is overwhelming demand to have in-house library practices streamlined to allow for computerization. This is supported by the fact that the gathering, storage and retrieval of information is quite often seen to be an end in itself. Information is compartmentalized to the extend that it does not conveniently reach those who need it most, thus lacking integration for effective accessibility by those requiring it. The information professionals within the African environment require induction, knowledge and an appreciation of the challenges facing the information systems and libraries before leaping straight into the information technological environment. They must have the mind and initiative to diagnose what possibly hinders their organization from participating and reaping the global ICT opportunities and make moves to put the right technologies in place in order to exploit digital information Obviously ICT success stories from across the world would be a basis for African information managers and librarians to learn from.

(d) MANAGING ACCESS VS HOLDINGS

Most of library and information service oriented organizations in Africa are characterized by closed access to their informational holdings. Closed within the organization by definitions and classification of the holdings as specialized or research or Africana or cultural or national or merely educational/academic/college/university or even government materials, such collection patent to serve specialized clientele-researchers, academicians, planners/administrators etc. There are internal problems inherent with integration of such holding and accessing the same from the reader/user point of view. The same materials are unknown beyond their parent organizations making it hard to borrow on library interlibrary loans system. There is therefore curtailed use or exploitation of such holdings. An allied problem is the out of date of the material held by libraries in Africa. A respected management approach to overcome these problems would be:

(a) To allow and increase their accessibility
(b) To digitize the holdings via Internet websites
(c) Storing them in multimedia packages for multiple approach and usage.

The conducive motive of this role Agarwal, Tanniru and Wilemon (1997) is to move and communicate information to people with ease and faster as they need it. Interlibrary resource sharing in Africa has been a fallacy. The answer may therefore lie in digitized information communication and access.

SIGNS OF SUCCESS

One key measure of success will be determined from client acceptability and routine exploitation of electronic information against the background of frustrations of accessing and sharing information. The actual real measure of success will be the performance of the African libraries and institutions in the digital information market. The test is squarely on the art of keeping clients satisfied all the time and most of the time.

RECOMMENDATION.

This paper strongly agrees for Africa to embrace digital information to survive the global cyberspace. However, there is a nced for the information managers to usurp required skills and competencies to ensure organizations and people reap the maximum benefits that have evolved from digitized information. As a utility measure, information professionals have to show their skills and competencies in:

- Delivering information to people efficiently and effectively
- Knowledge management and redesigning of information systems
- Information managers should acquire and apply concepts relative to management of information organizations. This should keenly reflect issues in planning, organizing, staffing, leading and controlling the information organizations within the context of global information era.
- Knowledge of organization assessment and change is crucial in mapping direction of print oriented information systems into the digital information. This calls for strategies of assessment, planning, development and change at the organizational and programmatic levels pertaining to African information organizations.
- Measurement and evaluation of library/information services will be brought into focus. The knowledge and understanding of strategies for implementing digitized information based services by the information professionals is imperative.
- A fresh look at the programs within the library and information education institutions has to bedone to equip information professionals with skills relative to closing gaps between conventional print and digital information. More so to provide overall understanding of the impact of modern revolution in information technology, challenges of the contemporary problems in information policies at individual, organizational, national and international levels. Fathoming contemporary legal and regulatory issues in view of the optimization of digital information and related information technology should underlie the legal know-how of the African information professionals for meeting (the challenges) of digital information world wide.
- There is great need to re-examine the key role of African human resource development which apparently requires a frame of mind and attitude that is open, curious and always ready to tackle new requirements brought about by digital information. This wholesomely implies that developing people to be capable of confidently and self-assuredly adapting to new challenges and changing circumstances and harnessing the resources abound with digital information. Professionals in this context need new intellectual, technical and cultural and interpersonal competencies. This is as a result of a growth of a worldwide digital information culture that is not specifically based on a particular national or ethnic pattern.

CONCLUSION

It is imperative that information managers understand the global nature and dynamics of digital information for the African advantage. The information managers must have the ability to build on the positive aspect of the global information era while making good of the negative aspect of globalization to ensure benefits accrued from digital information outweighs everything else. Management skills and competencies should constitute a kind of response that is appropriate to meet the challenges of change as presented by digital information vs global information revolution. To bridge the gap brought about by digital information, human resource development must be considered a crucial factor. Thus appropriate training and educational program should be put in place emphasizing skills and competencies for information managers as needed for brokering and embracing digital information. Indeed information professionals should view digital information as an opportunity for forging partnerships among nations but not as a threat to their survival. Bringing the whole Library of Congress or

British Library at the finger tips of a user via a remote terminal or personal computer situated in an African village, is such an overwhelming opportunity of a dream come true.

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